

# CRATE

## B160XL



# BASS AMPLIFIER

**CRATE** B160XL BASS AMPLIFIER



We would like to take this opportunity to thank you for selecting a Crate product, and to tell you of our commitment to the design and manufacture of only the finest musical instrument amplification equipment; built for you, the musician.

You have purchased one of the most innovative sound amplification devices available today. Your Crate amplifier gives you more performance features than ever before; features that you, the musician, have asked for.

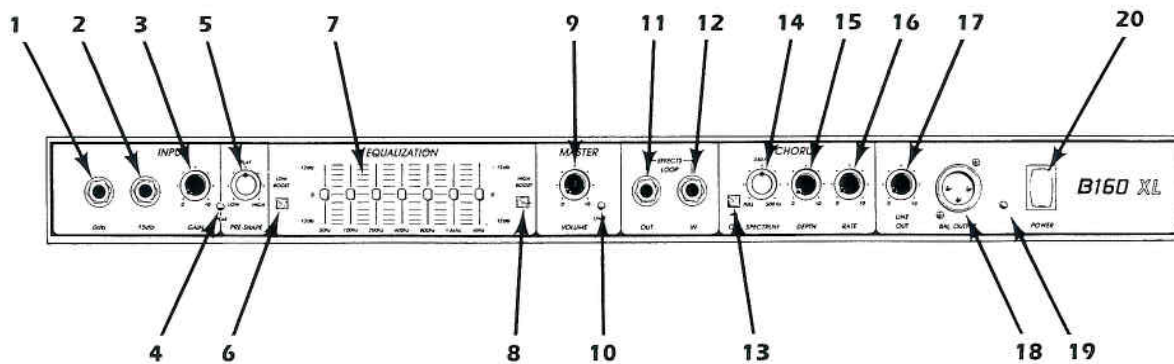
Your Crate amplifier is an American product, manufactured at our factory in St. Louis, Missouri. Only the finest available components and materials are used in the manufacture of each amplifier.

All Crate amplifiers are subject to seven or more inspection and testing steps to assure you of a high quality product. The final test for each amp is conducted by a trained musician with the instrument the amp was designed for. Any unit that does not meet the standards of his discriminating ear will not be passed.

Since all Crate products are designed, developed, and manufactured through the cooperative efforts of engineers and professional musicians, the end result is a product that responds to the musician's audio requirements, and a product that will serve your needs for years to come.



## OPERATION



### FRONT PANEL FEATURES AND FUNCTIONS

#### INPUT SECTION

- 1. INPUT JACK:** This input accepts a standard 1/4" phone plug and is suitable for any low to line level signal source such as an electric bass.
- 2. -15 dB INPUT JACK:** This input also accepts a standard 1/4" plug but is padded 15 dB for hotter inputs such as tape decks or active basses.
- 3. GAIN CONTROL:** This control sets the amount of gain for the preamp.

#### EQUALIZATION SECTION

- 4. LOW BOOST SWITCH:** Low frequencies are boosted when this switch is depressed.
- 7. GRAPHIC EQUALIZER:** This is the main tone control section of the B160XL. Seven bands of frequencies from 50 Hz to 5 kHz may be boosted by moving the sliders up or cut by moving the sliders down. The lower frequencies are to the left and the higher frequencies are to the right. A great many tone variations are possible using different settings of these sliders.
- 8. HIGH BOOST SWITCH:** This switch adds additional high frequency boost such as desired for a "popping" or "slapping" playing style.
- 9. MASTER VOLUME CONTROL:** This control sets the overall listening level of the B160XL.
- 10. LIMIT LED INDICATOR:** The B160XL contains a power amp limiter which automatically limits the signal to the power amp to a point just below "clipping" or distortion. This is to assure a clean undistorted sound at full power. The limit LED indicator will be lit whenever full power is reached.

A low output instrument or soft playing style requires high gain (5-10 setting) while a high output instrument or hard playing style requires less gain (1-4 setting). Too high of a setting along with boosted equalization may cause distortion or a harshness of sound. If this is not desired, simply reduce the gain with this control.

- 4. PEAK LED INDICATOR:** The peak indicator is lit whenever there is distortion present in the preamp. The gain control should be set so that the indicator flashes occasionally or does not

#### EFFECTS LOOP

- 11. EFFECTS LOOP OUTPUT:** This jack may be connected to the line level input of an external effects device. This jack may also be used as a "direct" unbalanced send for recording, etc.
- 12. EFFECTS LOOP INPUT:** This jack may be connected to the line level output of an external effects device. This "Post Gain" configuration is helpful in obtaining optimum input signal levels to external devices and reducing the noise levels associated with them.

#### CHORUS SECTION

- 13. CHORUS SWITCH:** The chorus effect is turned on when this switch is depressed.
- 14. SPECTRUM CONTROL:** With this control fully counterclockwise the full frequency spectrum of the signal is chorused. As the control is turned clockwise low frequencies are allowed to pass with no chorus effect allowing a more "tight" or punchy low end sound with upper harmonic chorusing. This is usually desirable when playing in a "live" situation.
- 15. DEPTH CONTROL:** This control is used to set the "depth" or amount of

light at all during normal playing.

- 5. PRE-SHAPE CONTROL:** This is a pre-EQ "master" tone control. With the control set at "12 o'clock", the signal will pass to the EQ section "flat" (with no modification of tone). As the control is turned clockwise, high frequencies will be boosted and as the control is turned counterclockwise, low frequencies will be boosted. This control can be used to "dial in" a general tone setting which can be fine tuned by the EQ section or to instantly modify an existing EQ setting with one knob.
- 16. RATE CONTROL:** This control is used to set the rate of chorusing. This control when used in conjunction with the Depth control allows a wide range of chorus effects from a subtle chorus effect to far out sound effects.
- 17. LINE OUT LEVEL CONTROL:** This control is used to set the level of the balanced line output jack.
- 18. BALANCED LINE OUTPUT JACK:** This jack provides a balanced output signal for connection to an external power amp, tape deck, or mixing board.
- 19. ON/OFF LED INDICATOR:** The LED will be lit when the amplifier is turned on.
- 20. POWER SWITCH:** Pushing the switch to the up position turns the B160XL on.



## REAR PANEL FEATURES AND FUNCTIONS

- 21. LINE OUTPUT JACK:** This jack provides a high impedance unbalanced output for connecting the B160XL to another amplifier or tape recorder. Simply run a cord from this jack to the input of another amplifier or tape deck.
- 22. LINE INPUT JACK:** This jack is used as a direct input to the power amp. Plugging into this jack disconnects the

direct (normal) connection between the preamp and power amp. The Line Input Jack may be used with the Line Output Jack as an effects loop.

**23&24 SPEAKER OUTPUT JACKS:** Any load equal to at least 2 ohms may be connected to the speaker jacks. If more than one jack is used, the total load considering both jacks must be at least 2 ohms. The standard internal speaker configuration is equal to 4 ohms. This means that an additional 4 ohm load may also be connected, which would be a total of 2 ohms.

**25. POWER CORD:** Your B160XL is equipped with a heavy-duty grounded three-wire power cord. Be sure this cord is properly plugged into a safely wired grounded 120 Vac 60 Hz AC power outlet before use. (If your B160XL was purchased outside the United States, refer to the rear panel for power ratings). For your safety, never attempt to defeat the ground connection on this cord.

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## B-160XL TECHNICAL SPECIFICATIONS

<b>Output Power Rating</b>	160 watts RMS 5% THD 4 ohm load-120Vac line
<b>Speaker Size and Rating</b>	B-160XL—15" with 2-1/2" voice coil, 56 oz. magnet crate special design. B-160XLE—15" Electro Voice Force
<b>Pre-Shape Control</b>	14 dB boost @ 5 kHz 10 dB boost @ 50 Hz
<b>Low Boost Switch</b>	10 dB boost @ 40 Hz
<b>Graphic Equalizer</b>	24 dB range @ 50Hz, 100Hz, 200Hz, 400Hz, 800Hz, 1.6kHz, and 5kHz
<b>High Boost Switch</b>	8 dB boost @ 10kHz
<b>Input Impedance</b>	220k ohms
<b>Maximum Signal Level Accepted</b>	15v peak-to-peak
<b>Gain @ 1kHz</b>	62dB w/EQ flat, boosts off
<b>Line Output Jack</b>	2 volts peak-to-peak @ full rated power
<b>Balanced Line Out Jack</b>	2 volts peak-to-peak @ full rated power with 600 ohm load
<b>Signal To Noise Ratio</b>	70 dB below full power
<b>Input Power Requirements</b>	120Vac, 60Hz, 400 watts max.
<b>Size and Weight</b>	24-3/4" W X 23" H X 16" D 65 lbs.

Specifications subject to change without notice.

**CAUTION:** To reduce the risk of electric shock, do not remove chassis. No user serviceable parts inside. Refer servicing to qualified service personnel.

**CAUTION:** This equipment is capable of producing sound pressure levels greater than 110 dB SPL. Continued exposure to such high sound pressure levels can cause permanent hearing impairment or loss. User caution is advised, and ear protection is recommended.